Naval Enterprise Networks PMW-205

NGEN Tour

Briefer(s) and Tour Lead(s) Package

Ver. 7

Purpose & Scope

PURPOSE: Provide the government tour team (briefers & tour leads) with direction and guidance to execute a standard, efficient and effective tour offering that does not compromise or create any unfair competitive advantages related to the NGEN acquisition.

SCOPE: The tour is designed to provide complementary information to the Offeror's Brief for enhancing the vendor's ability to accurately respond to the NGEN Request for Proposal (RFP) proposal.

Tour NMCI: Service Desk, Network Operations Center (NOC), and Server Farm.

REMINDER: HP is the incumbent and they will be bidding on this effort. Equity is paramount.

Briefers & Trailers

- Trailers shall be watchful for the unauthorized introduction to or removal from the installation government property, especially weapons and Arms, Ammunition, and Explosive (AA&E) materials. This responsibility includes all personnel and means of transportation, including government, private, and commercial vehicles, aircraft, railcars, and ships.

OPNAVINST 5530.14E

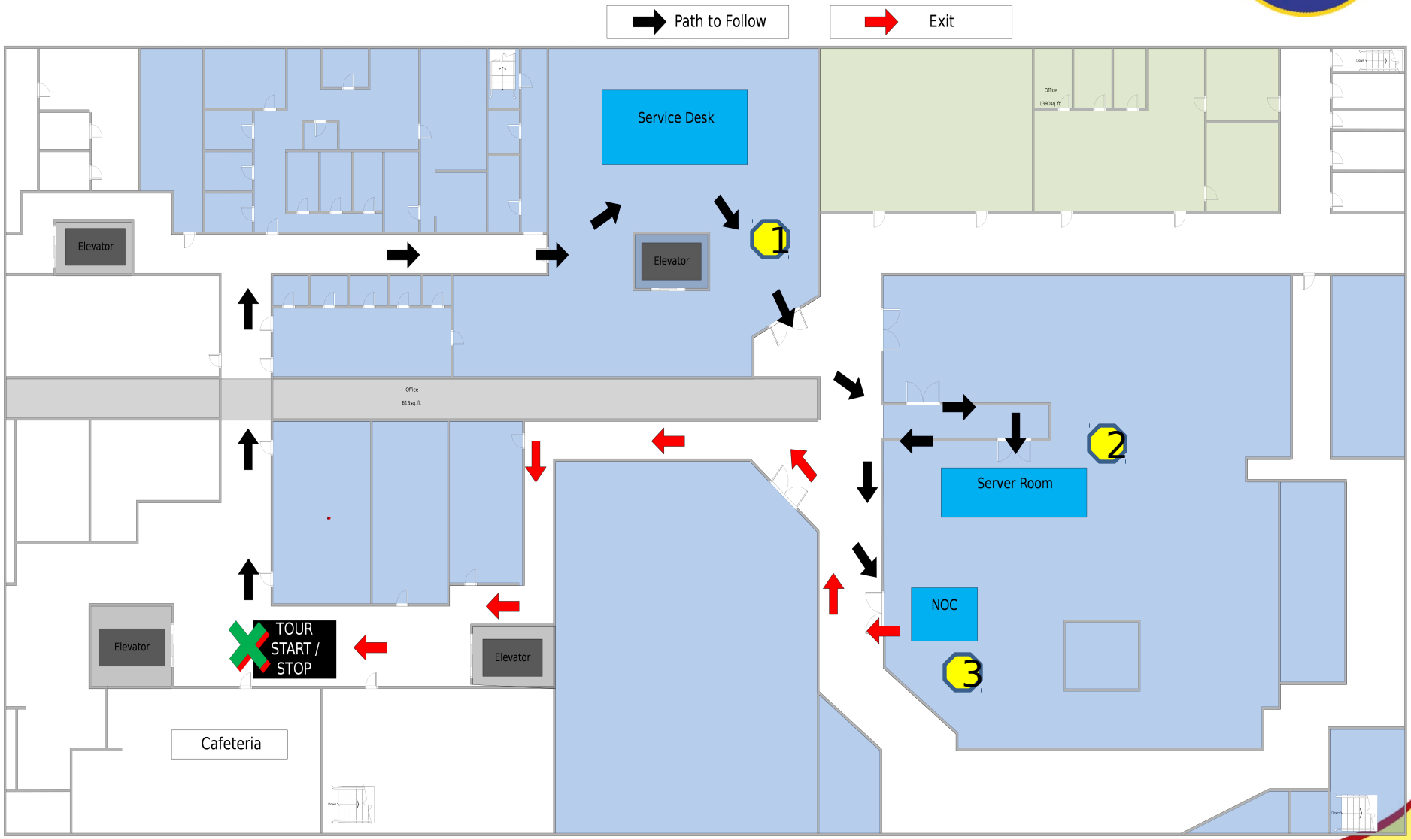
28 Jan 09

Pick up (checklist)

Briefer: Kevin

- **Verify personnel are listed and issue badges**
  - Individual must be on list provided by PEO-EIS. (No exceptions or stragglers)
  - Provide tour survey to all
  - No more than 2 late/early attendees may be accommodated per tour but, must be on the list and cleared by Kevin Coleman
- **Did everyone receive "Welcome Aboard" package?**
  - No electronic devices (cell phones, PDAs, etc.)
  - No cameras – Conduct last time collection to remain in bus
- **Once all Offerors are on bus, state the following:**
  - "This is 2 hour visual tour. You should have already received technical specifications"
  - Not counting the introduction there will be 3 tour stations, approximately 15 min each
  - There will be 10 min between each station to take notes, or write questions
  - We are on a very strict timeline so it is important to stay with the group. You will have an opportunity to have a quick restroom stop when we get to Bldg W143 prior to the tour start

Tour Route and Stations



Start & Stop Point (Cafeteria/Rice King)

- All tour members please stay with the group and assigned tour lead.
  - If anyone is lost during the tour, Rice King café will be the meeting point.
  - Point out phone outside room 6120 with posted numbers to call.
- Offer restroom break before beginning tour.
- Review exits (in emergency stay with group leader and will safely exit building).
- Ted Knight provide official welcome and short general comments.

Official Welcome

Briefer: Ted

- ***Greeting:*** Good (morning/afternoon) ladies and gentlemen. My name is Ted and I am the NAVNETWARCOM Enterprise Management Deputy Director. On behalf of VADM Mike Rogers (FCC/C10F), RADM Grunt Smith (PEO-EIS), and CAPTs Hendricks and Chandler, I welcome you to the Norfolk NMCI Network Operations Center, Service Desk and Server Farm. This facility provides NMCI services to approximately 90,000 warfighters. It is one of 4 Network Operation Centers including the Marine Corps NOC at Quantico, VA. Working closely with the government, the NOC is currently managed and operated by HP.

- ***Reminder:*** This is an operational facility with live support being provided, and as such, please keep your conversations to a minimum and observe professional courtesies at all times. You will be visiting classified spaces and as a reminder you are required to protect and safeguard any classified material that you may come into contact with.

- ***Questions:*** You have been instructed on how we will address questions, so please adhere to those instructions. And remember, any official government response will be in writing. Thank-you and enjoy your visit.

Service Desk Script (Pg 1)

- NMCI provides a full range of network based services via a single enterprise wide intranet.
  - Supports more than 800,000 Navy/Marine Corps user accounts.
  - On average, the Service Desk (SvD) handles 175,000 Unclassified, 12,000 Classified, and 1,500 Navy VIP user calls each month.
- 24-Hour support, seven days a week, 365 days per year using a modified follow-the-sun methodology (all SvD are manned 24/7, but may adjust numbers as necessary).
- The Norfolk Service Desk is representative of 1 of 4 SvD located across the U. S. to include Honolulu HI, Boise ID, and San Diego CA.
  - The Norfolk and San Diego Service Desks provide both Classified and Unclassified User support, and also provides specialized support for VIPs, Naval Nuclear Propulsion Information (NNPI), Naval Criminal Investigative Service (NCIS) & others.
    - ❖ There is another room in W143 where classified user support is provided.
  - For size and functional comparison, the Boise, Idaho service Desk is approximately twice the size of the Norfolk Service desk and provides Unclassified User support only.
    - ❖ The San Diego service desk is approximately one-fourth the size of

Service Desk Script (Pg 2)

- The Service Desk serves as the initial and single point of contact for all NMCI support.
  - This is where technology and end user support services intersect.
  - All service desk agents must be trained to provide basic to expert level support for all NMCI core applications and services such as (WIN 7, MS Office 2007 and 2010, MS Exchange, etc.).
  - The agents are also trained to provide basic to expert level support for services such as (Workstation diagnostics, BlackBerry, Broadband Unclassified Remote Access Service (BuRAS), Data at Rest (DAR), Air Cards, Share Drives, password resets, etc.).
  - Agents must be trained to resolve incidents quickly and professionally.
  - We require that the agent's security access and training levels are maintained IAW DoD 8570 requirements as well as any specialized training identified in the Request For Proposal (RFP).
  - Continuous training for new applications and services are required to provide continuous support the warfighter as well.

Service Desk Script (Pg 3)

- Service Desk is organized based on an Information Technology Service Management (ITSM) Structure.
  - All Incidents and Events are tracked and managed.
    - SD assigns an incident ticket to each call and tracks each ticket using Service Manager application.
    - Once a ticket is created it is tracked until customer is satisfied .
  - Identified common incidents are elevated to the Network Operations Center (NOC) for reporting and assistance.
  - Provides input into Problem management for obtaining a root cause.
  - Uses the known-error database for applying workarounds.
  - Provides Access Management services such as password resets (non-CAC & classified user access).
  - Provide Request fulfillment (Move, Add, Change requests).
  - Coordinates Base Operations (Base Ops) personnel to provide touch labor for efforts that cannot be completed remotely (such as re-image, HD swap, etc)
- Telephone-based Service.
  - Users contact the Service Desk via toll free number (1-866-THE-NMCI)
- Self-Help Portal.
  - Allows users to report incidents; submit trouble ticket; search via self help; automated password reset.

Service Desk Script (Pg 4)

- Through tracking and monitoring, the Service desk is designed to identify anomalies in user call volume that could identify an imminent interruption or loss of service. Service desk agents investigate, identify and resolve the outage or interruption. That information is passed to the NOC for establishing and prioritizing incident response actions if they reach pre-determined call volume.

- The SD consolidates and categorizes all incoming information.
  - Identify trends and resolve incidents in a timely manner.

- All processes work together to not only assists the users, but also aid while making informed network decisions.

- Overall, the SvD must meet service level requirements such as Average Speed to Answer (ASA), Average Speed of Response (ASR), first call resolution, etc.

- This concludes the service desk tour.

Server Farm Script (Pg 1)

(Staging Area: Inside of Front Door)

- The Norfolk Server Farm (data center) is one of the largest in the NMCI.
  - This server farm supports approximately 90,000 east coast users.
  - Of the 3000 servers in the NMCI, there are approximately 400 servers at this facility.
  - NMCI Server farms are categorized as large, medium, small, micro – This server farm is categorized as a large server farm.
  - There are 21 large server farms located across the U.S.

- One of the biggest challenges with operating a server farm/data center is keeping the equipment cool. So, not only do we have heavy duty air conditioning, but almost every piece of equipment in each of these racks has its own fan as well. This is why the equipment is not racked back to back.

Server Farm Script (Pg 2)

(Staging Area: Inside of front door)

- One of the ways we keep the server farm cool is with water chillers. We have multiple thermostats in this room set to 70 degrees, and as you can tell it is much warmer than 70 degrees since all of the equipment heat is not totally dissipated.

- Most of the servers have onboard heat sensors and will shut themselves off at a predetermined temperature to avoid damage. If we lost all cooling and air condition we would have approximately 15 minutes before the equipment would start shutting down.

- Equipment temperature alerts will be seen in NOC and an appropriate response is executed.

Server Farm Script (Pg 3)

(Staging Area: Inside of front door)

- As you might have noticed you walked up a ramp to get here. This is because most server farms are built on raised floors. Right now you are on a perforated, ventilated floor with 2 foot square tiles. The floor is raised to make room for the cables that connect the servers to the routers and switches in theses racks.

- This server farm houses classified, unclassified and special community of interest equipment i.e. NNPI

(Staging Area: Near Telephone Punch Down Blocks)

- This area houses the punch downs for the telephone equipment.

- Further down you see the servers that control the equipment which is primarily Unix based.

- The telephone equipment supports the service desk, NOC and multiple offices

- You will see a combination of mostly orange and blue cables. Generally speaking, the blue cables are copper and the orange are fiber optic. The red cables are classified.

Server Farm Script (Pg 4)

- As you all know, power is a critical element to data availability. There are multiple Uninterruptible Power Supply (UPS) systems in this room. (I will point one out) They provide approximately 30 minutes of uptime in the event of an outage.

- There are also 4 backup generators on the roof. Many of the servers have two power supplies. This is for the A and B power circuits. If one of the power circuits fails, then there is a fully redundant secondary power circuit.

- If you look through these equipment racks you can see how the equipment is plugged into both sides.

Server Farm Script (Pg 5)

(Staging Area: Back of Server Farm w/ H/S visible)

- Over on this side you can see the classified area. On the top of server rack this is indicated by a red sticker.

- The predominate operating systems includes Windows Server operating systems, Solaris Unix and HP-UX. Although a few devices run Linux, you are mainly going to see Unix and Windows based systems. A large amount of the Windows based servers are now virtualized.

(Staging Area: Back of Server Farm near SAN cabinets)

- As with any large data center we have tremendous database requirements. That data can be replicated in real time in multiple geographical locations. The locked cases along this wall are part of that data solution as well as for Storage Area Network solutions.

- We have failover and complete redundancy of certain solutions, but that is determined on a solution by solution basis.

Server Farm Script (Pg 6)

(Staging Area: Near Tape Robot)

- Next to the SAN storage devices you saw, we also have a tape robot for backups that is being phased out.

- Daily and weekly backups are stored off site to enable a manageable data recovery as was demonstrated during the 2011 Millington, TN flood in which we had to secure the server farm because of high water.

- Daily maintenance is scheduled and conducted during agreed maintenance times.

- Emergency maintenance (break/fix) is done to immediately restore a service.

- All maintenance actions are coordinated through NETWARCOM/NETOPS for C2 & SA.

Server Farm Script (Pg 7)

(Staging Area: Near Tape Robot)

- NMCI transport circuits are received from other base locations. These circuits provide BAN, WAN and GIG connectivity.

- This concludes the Server Farm Tour.

NOC Script (Pg 1)

- Welcome to the Norfolk Network Operations Center (Unclas). As previously mentioned there are NOCs located in San Diego, CA, Pearl Harbor, HI, and Quantico, VA. In this NOC, all NMCI services and applications such as Windows, Storage Area Networks, MS Exchange, Network Monitoring, Information Assurance and LAN/BAN transport are monitored and managed.

- Enterprise wide network status, performance and event monitoring is conducted as well as Information Assurance monitoring for viruses, intrusions, rogue machines, and various anomalies.

- Typically the front and middle sections focus on network and service monitoring. The rear sections focus on IA and transport monitoring.

NOC Script (Pg 2)

There are a host of tools and displays that provide near real-time network monitoring. Some of the tools used are:

- RPM: pulls statistics from servers performance monitors and displays alerts, ex. Red=critical. Provides a current operational picture (COP).
- NETCOOL: Creates alerts that meet set thresholds; allows to create trouble tickets.

- System Management 7 – ITSM service management toolset.
- Remedy – Classified ticketing system (being updated).
- Enterprise Performance Management Database (EPMD).
- And there are others.

NOC Script (Pg 3)

- The NOC communicates directly to the NAVNETWARCOM Battle Watch Captain (NNWC BWC) for providing situational awareness and network reporting to C10F/FCC through the Response to Operational Problem (RtOP) process.

- The Response to Operational Problem has pre-established thresholds that drive urgency of action and reporting frequency.

- Government directed actions (GDA) are issued from the NNWC Battle Watch for actions such as:
  - Block malicious websites
  - Disconnect an affected host
  - Open/close a port
  - Implement a security patch
  - Conduct a network scan
  - Implement additional web content filtering

NOC Script (Pg 4)

- Generally the NOC will notice an interruption or loss of service from failure or degradation of a network component such as a server, router, SAN device, or transport component such as WAN accelerator or circuit device. These infrastructure devices will typically impact a large user group. The impact and urgency is quickly established to ensure reporting timelines are met and an incident resolution is implemented to restore service.

- NOC personnel are supported by Subject Matter Experts (SMEs) and multiple vendors to resolve incidents and address problems as quickly as possible.

NOC Script (Pg 5)

- A large majority of service interruptions experienced in NMCI are caused by a loss of power or circuit connectivity. We are working to improve in these areas.

- The classified NOC is housed behind the closed door. Similar capabilities are resident and functions are performed on the classified network as well.

- With the size and complexity of the NMCI it is important that network situational awareness is maintained at all times. Pre-planned actions and responses are key in addressing events and conditions that interrupt or have the potential to interrupt the network services.

- This concludes the NOC tour.

Backup slides

First Tour Schedule

- 0730-0800: Pick up & depart Fleet Rec. Park (located on Hampton Blvd; behind Pass & ID)
- 0815-0835: Arrive W143 (transit and restroom call)
- 0835: Welcome Aboard -Front of Cafeteria
- 0840-0855: Station 1 (Service Desk)
- 0905-0920: Station 2 (Server Farm)
- 0930-0945: Station 3 (NOC)

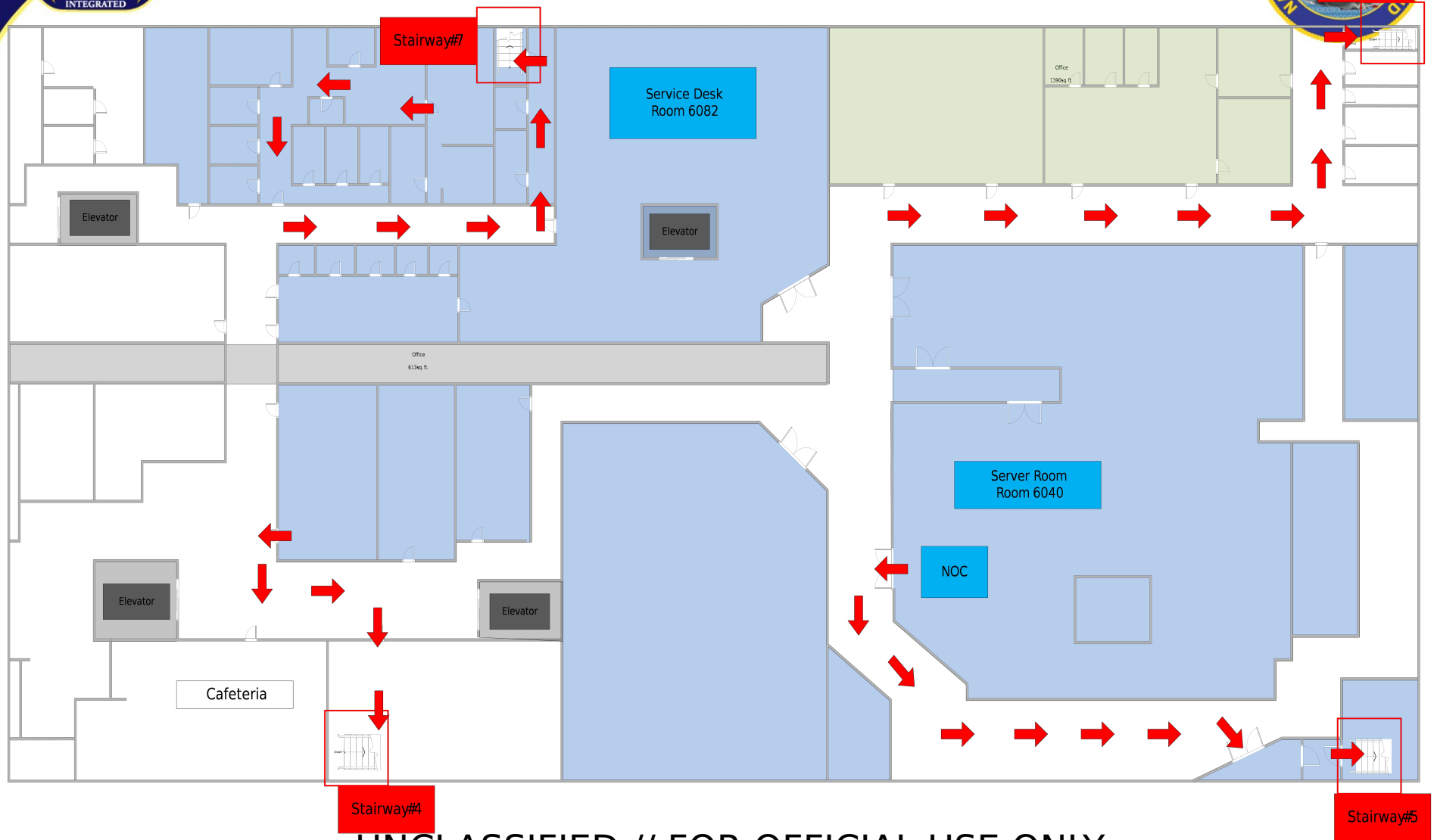
  10 Min travel Q&A between stations
- 0945-0955: Questions
- 1015-1030: Bus Depart W143 & Drop off at Fleet Rec. Park (Obtain any written questions and survey forms)

Second Tour Schedule

- 1030-1115: Pick up & depart Fleet Rec. Park (located on Hampton Blvd; behind Pass & ID)
- 1130: Arrive W143 (transit and restroom call)
- 1145: Front of Cafeteria – Welcome Aboard
- 1150-1205: Station 1 (Service Desk)
- 1215-1230: Station 2 (Server Farm)
- 1240-1255: Station 3 (NOC)

  10 Min travel Q&A between stations
- 1255-1305: Questions
- 1315-1330: Bus Depart W143 & Drop off at Fleet Rec. Park (Obtain any written questions and survey forms)

Evacuation Plan



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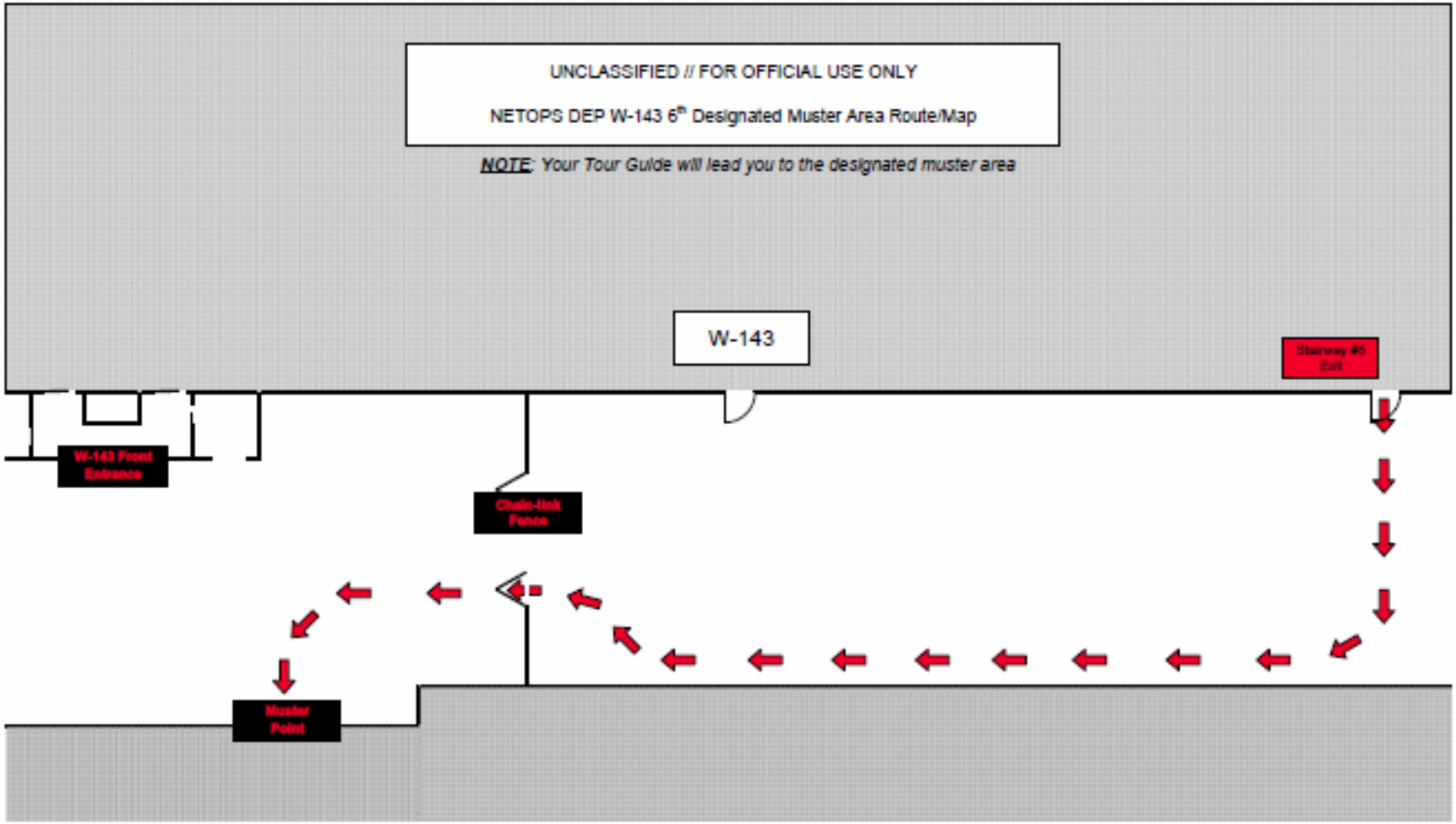
Evacuation Plan (Muster Points)


UNCLASSIFIED // FOR OFFICIAL USE ONLY
NETOPS DEP W-143 6th Designated Muster Area Route/Map
NOTE: Your Tour Guide will lead you to the designated muster area
W-143
Stairway #5 Exit
W-143 Front Entrance
Chain-link Fence
Muster Point

Questions

Point Of Contact (POC)

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